

831
92. (new) A method for etching an oxide layer of a substrate, comprising:
placing a substrate having an oxide layer formed over said substrate into a reactive chamber;
introducing an etching gas into said chamber;
generating a plasma of said etching gas at a first power level and contacting said oxide layer of said substrate with said first power level plasma for a first predetermined time;
and
generating a plasma of said etching gas at a second power level in said chamber and contacting said oxide layer of said substrate with said second power level plasma for a second predetermined time to etch said oxide layer, wherein said first and second power levels are different.

93. (new) The method according to claim 92, wherein said first power level is from about 100 Watts to about 250 Watts.

92
94. (new) The method according to claim 92, wherein said first power level is about 150 Watts.

95. (new) The method according to claim 92, wherein said first predetermined time is from about 3 seconds to about 10 seconds.

96. (new) The method according to claim 92, wherein said first predetermined time is about 5 seconds.

97. (new) The method according to claim 92, wherein said second power level is from about 800 Watts to about 1100 Watts.

98. (new) The method according to claim 92, wherein said second power level is about 950 Watts.

99. (new) The method according to claim 92, wherein said second predetermined time is from about 30 seconds to about 260 seconds.

100. (new) The method according to claim 92, wherein said second predetermined time is about 60 seconds.

101. (new) The method according to claim 92, wherein said etching gas for said first power level plasma and said second power level plasma is selected from the group consisting of Cl_2 , HBr , CF_4 , CHF_3 , CH_2F_2 and inert gases.

102. (new) The method according to claim 101, wherein said first power level plasma is formed of CF_4 , CHF_3 and an inert gas.

103. (new) The method according to claim 101, wherein said second power level plasma is formed of CF_4 , CHF_3 and an inert gas.

104. (new) The method according to claim 101, wherein said first power level and said second power level plasmas are formed of CF_4 , CHF_3 and Ar.

105. (new) The method according to claim 101, wherein said first power level and said second power level plasmas are formed of CF_4 , CHF_3 and He.

106. (new) The method according to claim 92, wherein said substrate is a silicon-based substrate.

107. (new) The method according to claim 92, wherein said substrate is a germanium substrate.

92

108. (new) The method according to claim 92, wherein said substrate is a gallium arsenide substrate.

09939651-002801